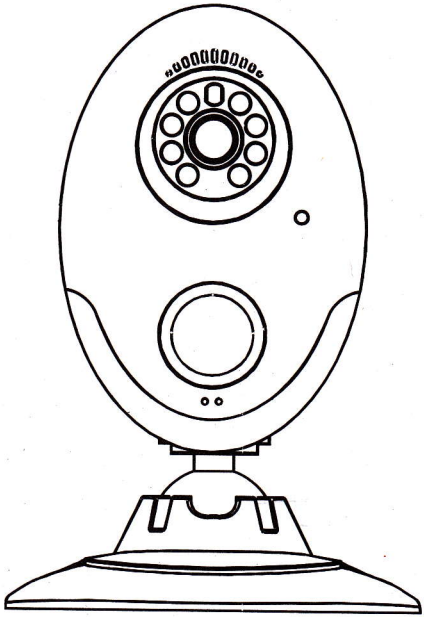
GSM REMOTE CAMERA



User Manual

Manual version 1.0

GSM REMOTE CAMERA

Thank you for purchasing the Camera. This camera is a remote controlled image-capturing device consisting of a microphone, infrared lights and a high quality 300,000-pixel camera lens. The Camera can capture images according to a pre-programmed remote command and then send it to your multimedia messaging (MMS) enabled mobile phone with color display, or to an e-mail address. You can control and change the camera settings via SMS command.

The MMS sent by the Camera can be viewed by using your mobile phone. You also can opt to view a slide of consecutive photos taken by the GSM Remote camera.

The built-in high-light infrared LED's allows the camera to capture clear images, even in dark environment.

The Camera is compatible with standard 433MHZ/315MHZ wireless sensors such as PIR, door magnet- and smoking sensors.

As soon as the wireless sensor triggers the camera alarm, you or your families and/or your guards can thus receive the alarm message via SMS, MMS or standard calls, according to the pre-programmed.

However, the camera can perform its duty well without any wireless sensor too. The camera has a motion detective function and an integrated infrared body detector. It will therefore detect any unauthorized entry into your house and notify you via SMS, MMS, standard calls or E-mail.

All services and functions need to be supported by the GSM network and a SIM card.

Details of the functioning and advanced operation of this camera are described in this instruction manual.

CONTENTS

For your safety 6

Exception clause 7

Chapter 1 Features and accessories 7

1.1 Main function 7

1.2 Package contents 9

1.3 Products features 10

1.4 Light indicator 12

Chapter 2 Installation 13

2.1 Install the SIM card 13

2.2 Host base board application 13

2.3 Mount the camera 14

2.4 Choose the installing place 14

2.5 Connect external power 15

2.6 Power on/ off 15

Chapter 3 Define the user 15

3.1 User authorization level 15

3.2 Switching on/off the socket output manually 17

3.3 Define family user 18

3.4 Define Guest user 20

3.5 Define emergency number 20

Chapter 4 Basic use and settings 21

4.1 Network parameter settings 21

4.2 Capture images 22

4.3 E-mail settings 25

4.4 Timing send images to mobile 26

4.5 Remote control 28

4.6 Emergency Alarms 30

4.7 Listening in and talking 32

4.8 Infrared body detector 33

4.9 Motion detection 34

4.10 Wireless sensor(s) 35

4.12 Timed arming the camera 41

4.13 Auto-disarming the camera 43

4.14 Camera language setting 44

4.15 Check status 44

4.16 Getting help 45

4.17 Resetting the camera 46

Chapter 5 Advanced settings 47

5.1 Image settings 47

5.2 Automatic alarm settings 48

5.3 Turn on/off LED indicator on the camera 51

5.4 SMS notification upon the power supply changing. 51

Chapter 7 General Troubleshooting 53

Appendix 1: SMS command list 55

Appendix 2: Main Technical Parameters 63

1. **Purchase a GSM SIM card (mobile phone card) from GSM network service and install it in the camera. This SIM card number is referred as camera number on this brochure.**
2. **The user needs to activate the MMS function and Caller ID Presentation function of SIM card, and deactivate PIN code of the SIM. Contact with GSM network service for support.**
3. **Change the original password at the beginning use. Be sure to keep the password and SIM card number secret. Do not disclose this information to anyone other than the authorized users in order to ensure your safety.**

For your safety

- This product is a wireless signal transmission device. Keep it away from electronic equipment likely to interfere with the wireless signals, in order to avoid signals interference.
- Switch off your camera and mobile phone when entering areas marked "Explosive", "Might explode", "Closed wireless transceiver devices" etc.
- Do not cast this product in a fire, as this may cause the battery to explode.
- This product should only be operated from power approved by the product manufacturer. The use of any other types of power may damage the product.
- Keep the product and its accessories out of the children reach.

Exception clause

1. We operate on a policy of continuous development. We reserve the right to make changes and improvements to any of the products described in this document without prior notice.
2. We don't guarantee for the document veracity, reliability or any content except regulate in proper laws. Including no guarantee for product suitable market or suitable area promise.
3. Use only this product according to the law. Respect one another's privacy. Neither monitor another's home nor private. We hold no responsibility for the illegal use of this product.
4. We hold no responsibility for any loss of data or income; or any special, incidental, consequential or indirect damages howsoever caused.
5. The contents of this document are provided "as is". Except as required by applicable law, no warranties of any kind, either expressed or implied, including, but not limited to the accuracy, reliability or contents of this document. We reserve the right to revise this document or withdraw it at any time without prior notice.

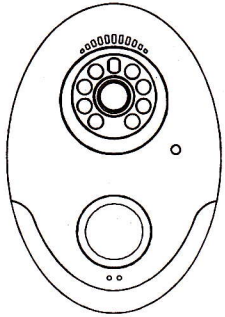
Chapter 1 Features and accessories

1.1 Main function

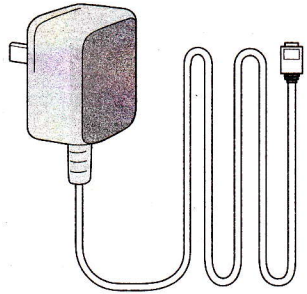
- This product uses a GSM SIM card. It can send multimedia messaging (MMS) images to MMS enabled mobile phones with color display or to an E-mail address.
- Remote control: Control and configure the camera with short messages (SMS) commands from a mobile phone.
- Real time audio: call the camera number (SIM card) to listen in live voice.
- Motion detection: Detect and notify authorized users of any motion in the monitoring area(s).
- Integrated infrared body detector.

- Sensor detection: Allowed to load up to 25 sensors such as door magnet sensor, infrared body sensor, smoke sensor, gas sensors、etc. Any activated sensor will notify the authorized users via SMS.
- Infrared light: The built-in high-light infrared LED's allows the camera to capture clear images, even in dark environments or areas with insufficient lighting.
- High quality camera: 300,000 pixel CMOS camera in order to obtain a clear image via MMS.
- Send images to mobile: The camera will send MMS images to your mobile. Therefore you can check on the monitored areas at any time and anywhere GSM/GPRS network coverage and MMS service coverage.
- Send images to E-mail: The camera can send images to preset available E-mail address.
- Multi-mode alarm: The camera can send alarm messages via SMS, MMS, E-mail or standard phone call.
- Fixed time monitor: The monitoring schedule can be set with multiple time intervals.
- Easy installation: Wireless connection. The camera can be installed at any place required by the authorized user.
- Accessories: Includes 2 remote controls each consisting of a panic button as well as buttons to arm or disarm the camera.
- Built-in lithium battery: Rechargeable battery ensures operation of camera amid external power failures.
- Downloadable user manual: This manual can be downloaded at any time via SMS command.

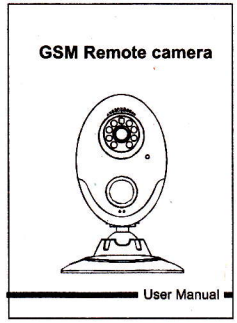
1.2 Package contents



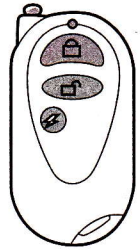
Remote camera 1 unit



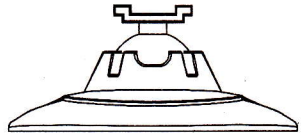
Power adapter 1 unit



User manual 1 unit



Remote control 2 units



Base board 1 set

1.3 Products features

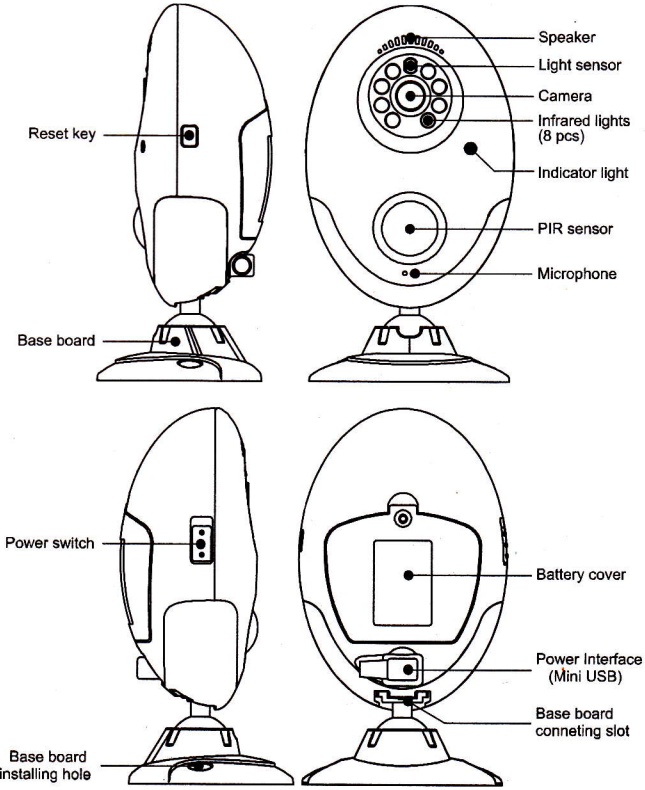


Figure 1: Host instruction

Tip: Keep the camera lens clean to insure best imaging quality.

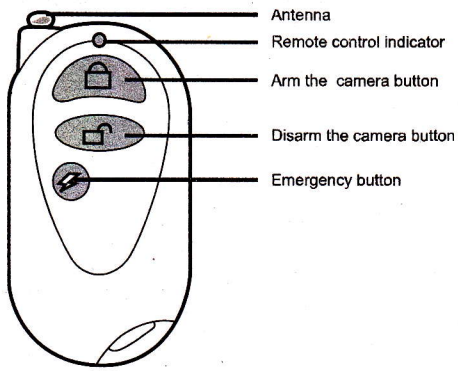


Figure 2: Remote control Instruction

Battery:

There is battery holder on the rear of the remote control. It needs one 27A/12V battery. When this battery is running out of power, camera will emit "Beep, beep" warning tone and then send a SMS notification message to Master user.

1.4 Light indicator

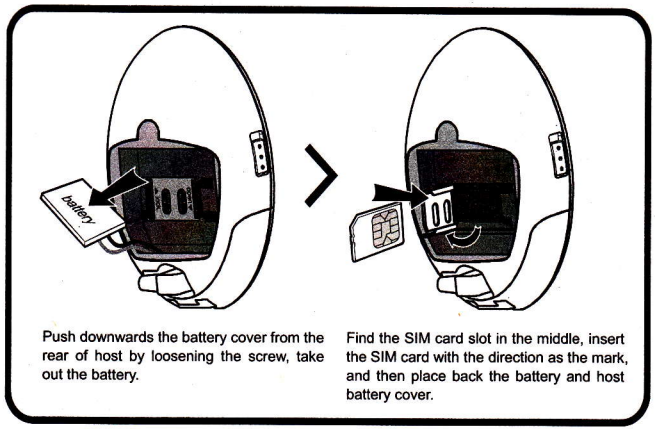
Color	Action	Status
Red	Flash slowly	Searching the network.
	Flash quickly	Sensor alarm, motion detection alarm, infrared body detector alarm.
	Constant Light	Not installed SIM card, or the remote camera damaged.
Green	Constant Light	Armed status.
	Flash twice per 2 seconds	Arming command received. Camera will enter arming mode after 20 seconds.
		During the pause between two alarms
	Flash slowly	Disarmed status.
	Flash quickly	Processing data.
	Light 2 seconds	Successfully reset factory setting, or loading sensor.
Orange	Flash	Loading remote control status.
Red and Green	Two color lights alternately	Loading sensor

Note:

Slow flash 1 time per second, quick flash 2 times per second.

Chapter 2 Installation

2.1 Install the SIM card



Push downwards the battery cover from the rear of host by loosening the screw, take out the battery.

Find the SIM card slot in the middle, insert the SIM card with the direction as the mark, and then place back the battery and host battery cover.

2.2 Host base board application

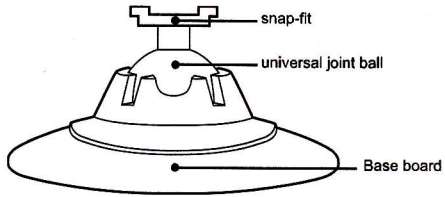


Figure 3: Base board instruction

2.3 Mount the camera

Camera can be mounted on a wall or put down on any suitable horizontal surface.

- According to base board installing hole space, make holes on the wall with a power drill.
- Insert expanding tube into the drilling hole, lock base board on the wall with self-drilling screws.
- Fix base board with the host by connecting slot.
- Host can turn around by base board's axle.

2.4 Choose the installing place

- In order to capture better image quality, avoid any areas where bright light will be irradiated directly into the lens of the camera on the camera.
- In order to avoid backlighting photography, it is suggested that the camera is located at the place where can look down the monitoring place with the minimum angel 30° .
- The GSM network's signal strength may affect the image, live voice quality and MMS transmission speed. Therefore, upon installation, the user should ensure that the camera is located in an area with a strong network signal.
- After installation, the user should perform a test-run by taking several images and sending it to the user's mobile phone. This allows the user to check the image quality of the camera. The position of the camera can then be adjusted until a satisfactory image quality level is reached.

2.5 Connect external power

- Connect the power adapter to an AC power, and connect the plug to the power interface of the host.
- The camera has a built-in rechargeable Lithium battery. The camera will notify the user when the power changes. For example, if the power adapter is disconnected or failure of the AC power occurs, the camera will notify the user "External power – ceased. Running on battery."
- If the camera is again connected to the external power, or the AC power is available again, the notification will be sent to the user, "External power – resumed.".
- Users can set the camera whether sending SMS message when the power supply changes. Refer to 5.4 SMS notification upon the power supply changing.

2.6 Power on/ off

Power on:

Operation	Indicator light	Status
Turn the power switch to up Position.	A "Beep…" tone will be heard.	
	Green light flash slowly, or Green light is on constantly.	Camera is disarmed or armed.

Power off:

Turn the power switch to down position. Then take off the power adapter.

Chapter 3 Define the user

3.1 User authorization level

There are three levels, each with a different authorization level, namely

Master, Families and Guest.

Table 3.1 the difference in authority for Master, Families and Guests users:

Functions / User Type		Master	Families	Guests
Change authority, password		YES	NO	NO
Automatic Alarm	Receive SMS	YES	NO	NO
	Receive MMS	YES	NO	NO
	Receive alarm calling	YES	YES	NO
	Get images by E-mail	YES	NO	NO
Emergency alarm	Receive SMS	YES	NO	NO
	Receive MMS	YES	NO	NO
	Receive emergency calling	YES	YES (Only emergency number)	
Call the camera to listen in live voice		YES	YES	NO
Get work status, images, help and instruction by sending SMScommand		YES	YES	YES (Password)
Get images by E-mail		YES	YES	NO
Set remote camera by SMS command		YES	YES	NO
Add, modify or delete sensor		YES	YES	NO
Camera language setting		YES	NO	NO
Set infrared body detect function		YES	YES	NO

Note:

- Any MMS enabled mobile phone can receive the images captured by camera by sending SMS command with password.
- Any SMS enabled mobile phone can control camera with the password command.

All the settings of camera can be set or adjusted via a SMS command.

About the SMS Command:

1) Master and families users' SMS command format: #code#content#.
2) Guest users' SMS command format: #code#password#content#.
3) The password must be a four-digit number.
4) The original password is 1234.
5) The maximum digits that are allows for the phone number is sixteen.
6) Camera will reply to the user after it receives the SMS command.

Note:

- The "#" symbol must not be ignored when typing an SMS command.
- No allow any space within the commands.

3.2 Switching on/off the socket output manually

In order to enable all the functions on the camera, the Master user must store his/ her mobile number in the camera's memory. Only one Master's mobile number (Master number) is allowed for a camera.

3.2.1 Add a master number to the camera

Authority: **Master** user.

Description

If the camera is being used for the first time, or it has been reset, the master user's number must be programmed into the camera, in order to ensure activation. The following methods can be used:

Method

The user must edit and send the following SMS to camera via his/her mobile phone (the phone number will be the Master number) in order to: **Add a master number to the camera:**

#00#Device-phone-number# **(1)**

Reply SMS:

Welcome to the GSM Remote Camera. Your password is '1234'. SIM: *****

Activate Successfully

Reply SMS: Invalid command format

Activate Fail: User tries to activate a camera which has Master phone number already.

3.2.2 Change the master number

Authority: **Master** user.

Method

The user sends following SMS message in order to:

Change the master user's number: #14#NewMasterNumber# **(2)**

Successful SMS reply

New master-phone-number is ****

Then the old master user's number will not be able to control camera anymore.

3.2.3 Change password

Authority: **Master** user.

Description

In order to ensure your privacy and safety during the use of this camera, change the password once camera is being used.

Method

The user sends following SMS message in order to:

Change the password: #04#oldpassword#newpassword# **(3)**

The password is a four digit number.

The original password is 1234.

Successful SMS reply

The password successfully changed to ****.

Failed SMS reply

If a user, other than the master user, attempts to change the password, a notification message will be sent via SMS: "Sorry, you are not authorized to use this command"

3.3 Define family user

Family users have the authority to listen in on the camera, receive images, load the sensors and remote controls to the camera, and

receive notification when motion detection activated. The family user's mobile numbers are set by the Master user. The family users should remember and safeguard the camera's SIM number.

3.3.1 Add a family number

Authority: **Master** user.

Method

The user sends following SMS message in order to:

Add a family number: #06#FamilyNumber# **(4)**

Add several family numbers:

#06#FamilyNumber#...#Family Number# **(5)**

Up to 10 family users' number can be stored on one camera.

Successful SMS reply

Family Number

The Associate-phone-number has been added successfully

3.3.2 Check family user's number

Refer to Chapter 4.15 Check status.

3.3.3 Delete family number

Authority: **Master** user.

Method

The user sends following SMS message in order to:

Delete a family number: #113#FamilyNumber# **(6)**

Delete several family numbers simultaneously:

#113#FamilyNumber#...#Family Number# **(7)**

Delete all family numbers: #113# **(8)**

Successful SMS reply

Family number Associate-phone-number-deleted.

Failed SMS reply

Associate-phone-number does not exist

When user type the wrong phone number (not exited in device) to delete, SMS : Family number Associate-phone-number-deletion failed.

3.4 Define Guest user

Any selected person can operate in the Guest category if they know the password and the SIM number. The Guest user(s) can then use their mobile phones to send a SMS command including password to camera in order to obtain an MMS image.

3.5 Define emergency number

The Emergency Number is the phone numbers which camera will dial when the emergency button of the remote control is pressed. Emergency numbers could be the telephone numbers of guards, family numbers, police etc.

3.5.1 Add emergency number

Authority: **Master** user.

Description

- The master user's number default to be emergency number.
- When the Emergency button is pressed, camera will automatically dial the Master user's number, followed by the other pre-set emergency numbers (the default mode is dial phone mode).
- Each camera can have up to 9 emergency numbers. (Not including the Master user's number).

Method

The user sends following SMS message in order to:

Add single emergency number on the camera:

#106#Emergency Number# **(9)**

Add several emergency numbers on the camera:

#106#EmergencyNumber#...#EmergencyNumber# **(10)**

The EmergencyNumber is the phone numbers.

Up to 9 emergency numbers can be stored on one camera.

Successful SMS reply

Emergency Number
Add emergency-phone-number successful.

Failed SMS reply

- If 9 emergency numbers (the maximum amount per camera) are used on camera and the master user attempts to add another one, the following notification message will be sent via SMS: "Emergency-phone- number list is full. Please delete old number(s)."
- If an existing number is being added again, the following notification message will be sent via SMS: "****Emergency-phone-number already exists."

3.5.2 Delete emergency number

Authority: **Master** user.

Method

The user sends following SMS message in order to:

Delete an emergency number: #107#EmergencyNumber# **(11)**

Delete several emergency numbers:

#107#EmergencyNumber#...#Emergency Number# **(12)**

Delete all emergency numbers: #107# **(13)**

Successful SMS reply

Emergency-phone-number is deleted successfully

3.5.3 Check emergency number

Refer to Chapter 4.15 Check status.

Chapter 4 Basic use and settings

4.1 Network parameter settings

Authority: **Master** user.

Note

In general, the user does not need to set the network parameter before use. The correct parameters have been set by the manufacturers according to every country's respective GSM provider. If the camera is unable to send MMS messages continually, the user can attempt to do these settings.

Description

If the camera is unable to send MMS messages continually, The GSM provider's MMS parameter must be added onto the camera by using command 14, 16, 17(for WAP) or 15,16,17(for HTTP).

Method

The user sends following SMS message in order to:

Set sending MMS message via WAP: #148#0# **(14)**

Successful SMS reply: Send MMS using WAP protocol

Sending MMS message via HTTP: #148#1# **(15)**

Successful SMS reply: Send MMS using HTTP protocol

Set MMS center: #124#*MMScenter#* **(16)**

- The **MMS center** should be the MMS center address of GSM provider. For example: #124#http://mmsc.monternet.com#

Successful SMS reply: PAR: ****

Set APN parameters:

#125#*GatewayIP#WAPGatewayPort#HTTPGatewayPort#APN#APNusername#APNpassword#* **(17)**

For example: #125#10.0.0.172#9201#80# cmwap#wap#wap#

Successful SMS reply

PAR: ****

4.2 Capture images

Authority:

Master/ family / guest send SMS to the camera to get the MMS image or send the image(s) to an appointed mobile or E-mail address.

Master/ family member call the camera to get the images.

Master/ family send SMS command to the camera to send MMS image to an E-mail address (Need to pre-set E-mail address).

4.2.1 Capture one image and send to the user mobile

Authority: **Master**, **family** and **guest** users.

Method

Method 1:

- **Master** or **family** user calls the camera and hand up upon hearing the ringing tone (within 20 seconds).
- Camera will reply SMS notification: "Image capturing request received. The camera is busy sending the MMS messages."

Successful SMS reply

Your request received, device is sending the MMS image

- The user will then receive the MMS message momentarily.
- The guest users are unable to capture an image by using method 1. If the guest users call the camera, it will neither send a notification message nor an MMS message.

Method 2:

The user sends following SMS message in order to:

Capture one image and send to the user mobile:

For master and family users: #03# **(18)**

For guest users: #03#***password#*** **(19)**

4.2.2 Capture images and send to the user's mobile

Authority: **Master**, **family** and **guest** users.

Method

The user sends following SMS message in order to:

Capture images and send to the user mobile:

For ***master*** and ***family*** users: *#03#**ImageQuantity#*** **(20)**

For ***guest*** users: *#03#**Password#ImageQuantity#*** **(21)**

- ***Image quantity*** should be in the range of 1-8 when the image size is set at 160×128 or 320×240 (See 5.1.1 image size.) The default

image size is 320×240(QVGA).

- ***Image quantity*** should be in the range of 1-2 when the image size is set at 640×480.

☺ **Successful SMS reply**

Your request received,device is sending the MMS image.

- The user will then receive the MMS message momentarily.
- The file format of the sent MMS images is: "Time.jpg". For example, a file with name of 094843.jpg means the image is captured with at 9:48:43AM.
- If a sent MMS file has several sequential pictures, the size of the pictures is pre-set by user (See 5.1.1 image size.). The interval between the pictures is default 0.5s and can be pre-set by user (See 5.1.3 image Interval).

4.2.3 Capture images and send to user's E-mail address

Authority: **Master** and **family** users.

🕮 **Description**

If the master or family user wishes to send the images to his/her E-mail address, the E-mail address must be set at first. See chapter 4.3 E-mail settings for more information regarding this function.

Method

The user sends following SMS message in order to:

Capture image(s) and send to pre-set E-mail:

#03#***ImageQuantity***#1# **(22)**

- **Image quantity** should be in the range of 1-8 when the image size is set at 160×128 or 320×240.
- **Image quantity** should be in the range of 1-2 when the image size is set at 640×480.

☺ **Successful SMS reply**

Your request received, device is sending the MMS image

4.2.4 Capture images and send to an appointed mobile or E-mail address

Authority: **Master**, **family** and **guest** users.

Method

The user sends the following SMS message in order to:

Capture image(s) and send to appointed mobile or E-mail address:

For ***Master*** and ***family*** user:

#30#***NumberOrEmail#ImageQuantity#*** **(23)**

For ***Guest*** user:

#30#***Password#NumberOrEmail#ImageQuantity#*** **(24)**

- ***NumberOrEmail*** should be the mobile phone number or E-mail address which the user appointed to send image.
- Image quantity should be in the range of 1-8 when the image size is set at 160×128 or 320×240(The default image size). See 5.1.1 image size.
- Image quantity should be in the range of 1-2 when the image size is set at 640×480.

☺ **Successful SMS reply**

Request received. Sending to**** * images

- The file format of the sent MMS images is: "Time.jpg". For example, a file with name of 094843.jpg means the image is captured with a camera at 9:48:43AM.
- If a sent MMS file has several sequential pictures, the size of the pictures is pre-set by user (See 5.1.1 image size). The interval between the pictures is default 0.5s and can be pre-set by user (See 5.1.3 image intervals).

4.3 E-mail settings

🕭 **Note**

This function should be supported by the local network provider. Please contact your local network provider for the details concerning this function.

4.3.1 Add/ modify an E-mail address

Authority: **Master** and **family** users.

Description

- Each user number can be set only one E-mail address. If more than one E-mail address is set onto one user number, camera will only recognize the E-mail address put in the last.
- If the user wishes capturing an image and sending to his/her E-mail address, see 4.2.3 capture images and send to user's E-mail address.
- If the user wishes camera sending the alarm image to his/her E-mail address, see 5.2.10 MMS notification to pre-set E-mail address.

Method

The user sends following SMS message in order to:

Add/modify an E-mail address: #108#***EmailAddress***# **(25)**

Successful SMS reply

Current alarm notification Email address is *****

4.3.2 Delete E-mail address

Authority: **Master** user.

Method

The user sends following SMS message in order to:

Delete all E-mail address: #109# **(26)**

Successful SMS reply

E-mail address-deleted

4.4 Timing send images to mobile

Authority: **Master** user.

4.4.1 Enable timing sends MMS images

Method

The user sends following SMS message in order to:

Enable timing sends MMS images: #115#1# **(27)**

Successful SMS reply

Periodic sending of images-activated.

4.4.2 Set time period to send MMS images

Method

The user sends following SMS message in order to:

Set time period to auto-send MMS image:

#116#WorkDay#StartTime1#EndTime1#IntervelTime1#...#StartTime3#EndTime3#IntervelTime3# **(28)**

- Max allow 3 periods per workday. Each period time should set by start time, end time and interval.
- ***Workday:*** one digit, the values lie in the range of "0" to "9".
- The following table contains the descriptions of each value:

Value	Corresponding day
0	Sunday
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Everyday
8	Monday to Friday
9	Monday to Saturday

- ***Start Time*** and ***End Time***: Be consists of 4 digits (hh:mm) and works on a 24 hour clock. For example: 0000 means time 00:00(hh:mm), 2359 means time 23:59(hh:mm). The Start Time and End Time should be in the same day, and the End Time must be later than Start Time.
- ***Interval Time***: This consists of 2 or 3 digits and has values in the

range of "10" to "480" minutes.

☺ **Successful SMS reply**

Periodic sending of images parameter: ****

4.4.3 Disable timing send MMS image

Method

The user sends following SMS message in order to:

Disable timing send MMS image: #115#0# **(29)**

☺ **Successful SMS reply**

Periodic sending of images-de-activated

4.5 Remote control

4.5.1 Add remote control(s) to the camera

Description

When a remote control is added to a camera, it can control the camera. A camera can be added up to **5** remote controls.

Method

Indicator	Operations	Status
Green, flashing or constantly light.	1. Press and hold the **Reset** key for 2 seconds	Indicator light turns to orange (Learning mode)
Orange, flashing	2. Press any button on the remote control (with battery inside) to send a signal to Camera.	Camera will emit a "Beep" tone and indicator will turn green for 2S. (Added successfully.)
Orange, flashing	3. Repeat step2 to load another new remote control.	
Orange, flashing	4. Press the **Reset** key to exit the learning mode or waiting for 15 seconds to auto-exit.	Indicator light turns green, flashing or constantly light. (Exit learning mode)

Note

During the process of learning new remote control, if the battery of remote control runs out, camera will emit three "Beep..." tones and exit learning mode. You need to replace the battery and try learning process again.

4.5.2 Remote control instruction

There are three buttons on the remote control:

A. **Arm the camera**

- When is pressed, the indicator light on Camera will turn green. This indicates that Camera is in armed mode.
- Any motion detected by Camera as well as any activation of added wireless detector will trigger the camera alarm and a SMS/MMS or phone calling notification will be sent to the preset numbers.

B. **Disarm the camera**

- When is pressed, the indicator light on camera will slowly flash green. This indicates that camera is in disarmed mode.
- Camera will not detect any motion or receive sensor alarm signal.

C. **Emergency button**

- When is pressed, the indicator light on camera will rapidly flash green. Then camera will dial the master user's number. Live audio stream can be heard upon answering the emergency call.
- If the master user does not answer the call, camera will then dial the other emergency numbers as preset order, until someone answers the call.
- The master user's number as well as the emergency numbers will be called a maximum three times. If it is still no one answers the call, camera will then exit dialing mode automatically.
- When is pressed, camera could send a notification via SMS and MMS instead of making phone calls. This all depends on the setting. Refer to 4.6 Emergency alarms.

4.5.3 Arming or disarming SMS notification

Authority: **Master** and **family** users.

Method

The user sends following SMS message in order to set:

No SMS notification message upon arming or disarming camera via remote control: #137#0# **(30)**

☺ **Successful SMS reply**

SMS upon status change by remote control – disabled.

Send SMS notification message upon arming or disarming camera via remote control: #137#1# **(31)**

☺ **Successful SMS reply**

SMS upon status change by remote control-enabled

Press Arm the camera button on remote controller, user will receive SMS :Defense mode is activated

Press Disarm the camera button on remote controller, user will receive SMS :Defense mode is de-activated

4.5.4 Remove remote control from the camera

Authority: **Master** and **family** users.

Method

The user sends following SMS message in order to:

Remove all remote controls from the camera: #111# **(32)**

☺ **Successful SMS reply**

All remote controls-deleted.

4.6 Emergency Alarms

Authority: **Master** and **family** users.

Description

- When the wireless panic button or button on the remote camera is pressed, camera will go into emergency mode to alarm. The wireless panic button and remote control need to be loaded onto

Camera before use. (Refer to chapter 4.10.1 and 4.5.1 for details)

There are two modes of the emergency alarm could be set on the camera:

Emergency Mode1 (Default): To dial the master user's number as well as the pre-set emergency numbers. When the emergency button is pressed on the remote control, camera will dial the master user's number as well as the pre-set emergency numbers. camera will repeat this process 3 times, until someone answers. If, after 3 attempts, there is no answer, camera will automatically stop dialing and revert to its preset mode. In the case of someone answers, he/she will be able to listen in the live audio.

Emergency Mode2: To send a notification via SMS and MMS to the **master** user as well as the pre-set emergency numbers. When the emergency button is pressed on the remote control, camera will send the notification via SMS and MMS to the **master** user as well as the pre-set emergency numbers.

Method

The user sends following SMS message in order to set:

Emergency Mode1 (To dial the **master** user's number as well as the pre-set emergency numbers): #39#0# **(33)**

☺ **Successful SMS reply**

Voice call to preset number upon emergency alarm – enabled.

Emergency Mode2 (To send a notification via SMS and MMS to the **master** user as well as the pre-set emergency numbers): #39#1# **(34)**

☺ **Successful SMS reply**

SMS and MMS notification upon emergency alarm – enabled.

Press Emergency button on remote controller, user will receive SMS and MMS

SMS: Receive emergency alarm

MMS (Picture title): HH:MM:SS (Emergency alarm)

4.7 Listening in and talking

4.7.1 Call the camera to listen in and talk

Authority: **Master** and **family** users.

Method

The user calls camera after which it will answer automatically. The user can then listen in the live audio in the monitoring area. Only one line can be connected to camera at a time.

4.7.2 Listening in and talking upon emergency alarm

Description

- Whether camera is in arm or disarm status, it will automatically dial the Master user's phone number if the emergency button is pressed. The Master user can listen in by answering the call.
- If the Master user does not answer the call, camera will automatically dial the other emergency numbers sequentially. This notification process will repeat three times and if still unanswered, camera will automatically exit the dialing mode.

4.7.3 Listening in and talking upon automatically alarm

Description

- When the camera is in armed status and if the user preset the auto-alarm way as calling the user (Refer to chapter 5.2.8 Call notification upon alarm for the details of preset alarm) a call will automatically go through to the Master user's preset numbers when the camera alarms. The user can communicate with the monitoring area by answering the call.

- If the Master user does not answer the call, the camera will dial the other pre-set Family number until the call is answered. This notification process will be repeated three times and if still unanswered, the camera will automatically exit the dialing mode.

Enhanced Application of the device

The device have two way communication function, as a mobile phone device

4.8 Infrared body detector

Authority: **Master** and **family** users.

Description

When camera is working under arming mode, if someone approaches to the detecting area, the built-in infrared body detector will trigger the camera alarm.

Method

The user sends following SMS message in order to:

Activate infrared body detector (default): #118#1# **(35)**

Deactivate infrared body detector: #118#0# **(36)**

Successful SMS reply

Infrared body detector - activated

Infrared body detector - deactivated

- When the infrared body detection alarms, the notification pictures will be sent on one message via MMS. The default quality of individual picture is 5 and the size is 320×240 pixels. In order to change the setting, see chapter 5.1.1 Image size and chapter 5.1.2 Image quantity when alarm.

Enhanced Application of Infrared body detector link motion detection

at some special situation, only both of Infrared body detector and motion detector were actived with 10 seconds, the device send motion detection alarm. Such case will be avoid the lighting changing or falling leave / small flying insects cause wrong alarm.Infrared body detector link motion detector :

#166#1# **(37)**

Combined motion detection and infrared sensor - actived

4.9 Motion detection

Description

- The motion detection feature is based on image frame compare technology. The firmware will compare front and after images which capture from camera and therefore detect motion.
- The motion detection feature only functions when camera is armed. i.e., arming camera enables the motion.
- The motion detection feature is also functional when camera is in its default setting.
- When the motion detection alarms, the notification pictures will be sent on one message via MMS. The default quality of individual picture is 5 and the size is 320×240 pixels. In order to change the setting, see chapter 5.1.1 Image size and chapter 5.1.2 Image quantity when alarm.

Note

- If camera faces an object that moves constantly, such as a tree

shaking in the wind, it will send alarm message constantly. Recommend to use the camera in a still place.

- Low battery: The motion detection function will be deactivated and the configure setting can not be saved when camera is operating in low battery.

4.9.1 Activate/Deactivate motion detection

Authority: **Master** and **family** users.

Method

The user sends following SMS message in order to:

Deactivate motion detection (default): #22#0# **(38)**

☺ **Successful SMS reply**

Motion detection is de-activated

Activate motion detection: #22#1# **(39)**

☺ **Successful SMS reply**

Motion detection is activated

4.9.2 Send five images upon motion detection alarm

Authority: **Master** and **family** users.

Description

Camera will send out 5 images with fixed size of 160×128 pixels when motion is detected.

Method

The user sends following SMS message:

Send five images upon motion detection alarm: #142#1# **(40)**

Cancel send five images of motion detection alarm: #142#0# **(41)**

4.10 Wireless sensor(s)

Authority: **Master** and **family** users.

Description

Any 433MHZ/315MHZ wireless sensor, such as infrared body sensor,

wireless door magnet, wireless smoke detector etc. can be set as an alarm sensor of the camera.

4.10.1 Load a wireless sensor or a panic button onto the camera

Authority: **Master** and **family** users.

Description

- Up to **25** wireless sensors and panic buttons can be loaded onto one camera.

Method

1. Power on the wireless sensor.
2. The user sends following SMS message to:

Make camera enter loading mode and set corresponding alarm mode: #05#*SensorDescription#* **(42)**

Successful SMS reply

Device is ready to load wireless sensor. Activate the sensor immediately.

After Sensor Description was actived, device will receive SMS

**** sensor successfully loaded.

Make camera enter loading the "wireless panic button" mode:

#196#*PanicDescription#* **(43)**

Successful SMS reply

Ready to load panic button. Activate panic button NOW.

After Panic Description was actived, device will receive SMS

**** sensor successfully loaded.

- Sensor Description and Panic Description is used for identify different sensors affiliated with each camera. It can be numbers and letters.
- Sensor Description could be empty. If SMS command is only #05#, camera will recognize the sensors in number order been added to the camera. For example, Sensor1, Sensor2, Sensor3. When a sensor triggers camera alarm, camera will default send out SMS alarm message only.
- Panic Description could be empty. If SMS command is only #196#, camera will recognize the panic button in number order been added to the camera. For example, SOS1, SOS2, SOS3. When a wireless panic button triggers camera alarm, camera will send out emergency alarm (Refer to chapter 4.6 Emergency Alarms).
- Up to 9 characters can be typed in Sensor Description and Panic Description.

Set the wireless sensor alarm mode:

- If you add * at front of Sensor Description, Camera will send out MMS and SMS alarm message.
- E.g. #05#*door2# when "door2" sensor triggers camera alarm, Camera will send out SMS and MMS alarm messages.
- Otherwise, if the first character of Sensor Description without *, camera will send via SMS only.
- E.g. #05#door1# when "door1" sensor triggers camera alarm, Camera will send out SMS alarm message only.
- If the sensor is set "send alarm via SMS only when it alarm" by this command successfully, the user can not use command 81, 82, 83 and 84 to change alarm way of the sensor.

3. When camera has received the SMS command, it will emit a "Beep..." tone and the indicator will flash red and green alternately. Camera will then send a notification message via SMS to the user(s): Device is ready to load wireless sensor. Activate the sensor immediately.
4. The user needs to make the sensor work and transmit signal to be studied by camera.
   E.g. For a wireless door magnet, open and close the door once to send the signal to the camera.
5. When camera receives the sensor signal, it will emit a "Beep..." tone and send a notification message via SMS to the user(s) stating "**** sensor successfully loaded."
6. To exit the loading mode manually, press the Reset key of the camera, camera will emit a "Beep..." tone and exit the loading mode.

☹ **Failed SMS reply**

- If Camera failed to load the sensor, the indicator light on camera will flash red and green alternately for approximately 60 seconds, camera will revert back to the preset armed/disarmed mode.
- When the maximum amount of sensors is already loaded, if a user attempts to load one more sensor onto the camera, camera will send a SMS message "Sensor list is full. Please delete old sensor at first."
- Camera will emit "Beep, Beep..." tone if the user want to load an existed sensor which has been loaded onto camera.

4.10.2 Remove wireless sensor

Authority: **Master** and **family** users.

Method

The user sends following SMS message in order to:

Remove a wireless sensor:

#112#*SensorDescription#...#SensorDescription#* **(44)**

- ***Sensor description*** should be the existing sensor which the user wants to remove.

☺ **Successful SMS reply**

All sensors - deleted, ****

Remove all wireless sensors: #112# **(45)**

☺ **Successful SMS reply**

All sensors – delete

Enhanced Application of wireless sensor link motion detection

At some special situation, Only both of wireless sensor and motion detector were actived with 20 seconds, the device send motion detection alarm. Such case will be avoid the lighting changing or falling leave / Small flying insects cause wrong alarm

Wireless sensor link motion detector:

#166#2# **SensorDescription#1#** **(46)**

User can repeat upper command to link more wireless sensor

Wireless sensor dislink motion detector:

#166#2# **SensorDescription#0#** **(47)**

User can dislink appointed wireless sensor, all sensors

Combined motion detection and sensor – deactived

(Including bulit-in PIR sensor) #166#0# **(48)**

4.11 Arming or disarming camera manually

4.11.1 Arming camera manually

Authority: **Master** and **family** users.

Description

- When camera is arming, it can be triggered by all loaded sensors, infrared body detector and motion detector.Camera will automatically send alarm message or making a phone call once it is triggered.

- Once camera alarms automatically, after it finish sending the alarm message, it will be at the alarm-suspension situation for default 1 minute, that is, the camera can not be triggered again within a period time (How to change alarm-suspension time period? Refer to chapter 5.2.11 for more details).

Method

Method 1:

The user sends following SMS message in order to:

Arming camera manually: #01# **(49)**

Method 2:

Press on the remote control, whilst pointing it in the direction of camera. Camera will emit a "Beep" tone, to indicate that arming camera is successfully.

☺ **Successful SMS reply**

Defense mode activated

The indicator light will flashing, and 20 seconds later turn green (no flashing).

4.11.2 Default arming mode

- In this mode, the infrared light will be on.
- When motion is detected, a notification will be sent via SMS to preset user numbers. Five notification pictures will be sent on one message via MMS. MMS image quality is 320×240(QVGA).
- When the integrated infrared body detector and loaded wireless sensor alarms camera, a notification will be sent via SMS to preset user numbers. Five notification pictures will be sent on one message via MMS. MMS image size is 320×240(QVGA).
- Once camera alarms, after it finish sending the alarm message, it will be at the alarm-suspension situation for default 1 minute.

4.11.3 Disarming camera manually

Authority: **Master** and **family** users.

Description

When camera is working under disarmed mode, all loaded wireless sensor, integrated infrared body detector and motion detection function could not work. But it will send an SMS/MMS notification or make phone calls only when button on remote control is pressed.

Method

Method 1:

The user sends following SMS message in order to:

Disarming camera manually: #02# **(50)**

Method 2:

- Press the button on the remote control, whilst pointing it in the direction of the camera.

☺ **Successful SMS reply**

Defense mod is de-activated

Camera will emit a "Beep..." tone, and the indicator light will flash green.

4.12 Timed arming the camera

Authority: **Master** and **family** users.

4.12.1 Enable timing arms the camera

Method

The user sends following SMS message in order to:

Enable timing arms the camera: #128#1# **(51)**

☺ **Successful SMS reply**

Periodic of arming and disarming the device - activated.

Then camera will arming automatically according to the settings.

4.12.2 Set time period to arm the camera

Method

The user sends following SMS message in order to:

Set time period to arm the camera:

#129#WorkDay#ArmTime1#DisarmTime1#...#ArmTime3#DisarmTime3# **(52)**

- Up to 3 periods be allowed per workday. Each period time should set by ***Arm Time***, ***Disarm Time***.
- ***Work Day***: one digit, the values lie in the range of "0" to "9".
- The following table contains the descriptions of each value:

Value	Corresponding day
0	Sunday
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Everyday
8	Monday to Friday
9	Monday to Saturday

- ***Arm Time and Disarm Time***: Be consists of 4 digits (hh:mm) and works on a 24 hour clock. For example: 0000 means time 00:00(hh:mm), 2359 means time 23:59(hh:mm). The Airtime and Disarm Time should be in the same day, and the Disarm Time must be later than Airtime during the same period.

☺ **Successful SMS reply**

Periodic of arming and disarming parameter is: ****

4.12.3 Disable timing arm the camera

Method

The user sends following SMS message in order to:

Disable timing arm the camera: #128#0# **(53)**

☺ **Successful SMS reply**

Periodic of arming and disarming the device - deactivated.

4.13 Auto-disarming the camera

Description

In order to avoid camera sending out alarm message all the time and out of **Master's** attention, camera can be set auto-disarm when it has been sent out alarms certain times (At least one alarm message should be sent via MMS). After the user set this function successfully, any alarm of camera will be counted in alarm times. When the user arms/disarms camera manually, the counted alarm time will be cleared to 0.

4.13.1 Activate auto-disarming the camera

Authority: **Master** and **family** users.

Method

The user sends following SMS message in order to:

Activate auto-disarming the camera: #138#1# **(54)**

☺ **Successful SMS reply**

Disarm the device after several times alarm - activated

Set the value of alarm times when camera is auto-disarming:

#139#times# **(55)**

- The **times** should be numbers.

☺ **Successful SMS reply**

- Disarm the device after * times alarm
- When the alarm times reach to the times value setting, camera will be auto-disarmed and send SMS message" The device has been auto-disarmed."

4.13.2 Disable the function of auto-disarming the camera (default)

Authority: **Master** and **family** users.

Method

The user sends following SMS message in order to:

Disable the function of auto-disarming the camera: #138#0# **(56)**

☺ **Successful SMS reply**

Disarm the device after several times alarm de-activated

4.14 Camera language setting

Authority: **Master** user.

📖 **Description**

Camera supports both English and Spanish (or the user's first language) display.

Method

The user sends following SMS message in order to set:

English（default）:	#127#1#	**(57)**
Russian	#127#2#	**(58)**
Spanish	#127#3#	**(59)**
France	#127#4#	**(60)**

☺ **Successful SMS reply**

Set **** version successfully

4.15 Check status

Authority: **Master**, **family** and **guest** users.

Method

The user sends following SMS message in order to:

Check the present settings and work status of camera:

- For **master** and **family** users: #07# **(61)**
- For **guest** users: #07#password# **(62)**

☺ **Successful MMS reply**

- Camera will reply via MMS, depending on which status is currently set on. Such as:

(Dis) armed
SMS upon alarm -
MMS upon alarm -

Voice call to preset number upon alarm-
Motion detection -
Infrared body detector-
Audio Warning -
Periodic sending of images-
Periodic of arming and disarming the device-
Alarm pictures quantity:
Image size:
Image direction:
Image contrast:
Image interval:
Image brightness:
Image compressibility:
Motion detection sensitivity:
MMSC:
IP:
Port:
APN:
User:
Password:
Master-phone-number:
Associate-phone-number:
Emergency-phone-number:
Sensor:

4.16 Getting help

Authority: **Master**, **family** and **guest** user.

📖 **Description**

The user can send SMS to camera in order to get the SMS command list which the command description as well as the codes will be supplied or get the MMS named "CAMERA user manual" on which all the command descriptions as well as the codes will be supplied. The list and the manual's contents can be view via the user's mobile phone.

Method

The user sends following SMS message in order to:

Getting normal command list via SMS:

- For **master** and **family** users: #09# **(63)**
- For **guest** users: #09#***password***# **(64)**

Getting detailed instruction via MMS:

- For **master** and **family** users: #09#1# **(65)**
- For **guest** users: #09#password#1# **(66)**

4.17 Resetting the camera

Authority: **Master** user.

Description

- This function resets all programmed settings to their original values.
- After camera is reset, it will need to be restarted. The remote control as well as the wireless sensor will also need to be reloaded. Refer to chapter 3.2 Define Master user to start the camera.
- After resetting the camera. However, if the MMS function does not work, the MMS parameter will need to be reset. Refer to chapter 4.1 Network parameter settings.

Note

This function needs to be used carefully as it also erases the values for the master number, the remote control as well as the wireless sensor(s).

Method

Method 1: Reset via the camera

- Switch camera off. It must remain off for a minimum of 20 seconds.
- Press and hold the Reset button and then switch camera back on.
- The indicator light will be green for 2-4 seconds after which it will flash red.
- If the resetting of camera is successful, a "Beep ..." tone will be emitted.

Method 2: Reset via SMS command

The user sends following SMS message to camera in order to:

Reset the camera: #08#***password***# **(67)**

Successful SMS reply

Device successfully reset to default settings.

Chapter 5 Advanced settings

5.1 Image settings

The user sends the following edit message via SMS to camera in order to configure the following settings:

5.1.1 Image size

- For **master** and **family** users: #32#value# **(68)**
- If the **value** is 1, the image size is 160 ×128(pixels). It's for a standard small screen mobile phone. The size of one MMS image file is 4K.
- If the **value** is 2, the image size is 320×240(**QVGA default**). The size of one MMS image file is 9K.
- If the **value** is 3, the image size is 640 × 480 (VGA). The size of one MMS image file is 33K.

Successful SMS reply

Image size has been reset to *

5.1.2 Image quantity

- For **master** and **family** users: #33#quantity# **(69)**
- The default quantity value is 3, with the default image size 320×240 and the Image capturing interval time 0.5s.
- The quantity value should be in the range of 2-8.
- If the image size is 640×480, up to 2 image quantity can be used.
- The image size and image capturing interval time can be changed, see chapter 5.1.1 and 5.1.3.

Successful SMS reply

Number of Alarm images has been set to *

MMS file name:

- For wireless sensor alarm: Time (Sensor name).
- For motion detection alarm: Time (Motion).

5.1.3 Image interval

- For **master** and **family** users: #103#time# **(70)**
- The Interval time values should be in the range from 3-10.
- Each unit constitutes 100ms.
- The default value is 5, i.e. 0.5 seconds.

☺ **Successful SMS reply**

Image capture interval has been set to *

5.2 Automatic alarm settings

📖 **Description**

Camera will enter auto-alarm mode and send notification messages (SMS and/or MMS) to the previously set numbers or e-mail addresses in one of the following two circumstances:

- When motion is detected or
- When the wireless sensors are triggered.

The user sends the following edit message via SMS to camera in order to activate the following functions:

5.2.1 Warning tone upon alarm triggering

- For **master** and **family** users: #130#1# **(71)**

☺ **Successful SMS reply**

Audio warning - activated

Camera will emit a "Beep ..." tone upon alarm activation.

5.2.2 No warning tone upon alarm (Default)

- For **master** and **family** users: #130#0# **(72)**

☺ **Successful SMS reply**

Audio warning - deactivated

Camera will not emit any tone upon alarm activation.

5.2.3 No SMS notification upon alarm

- For **master** and **family** users: #11#0# **(73)**

☺ **Successful SMS reply**

SMS notification upon Alarm – disabled.

5.2.4 SMS notification upon alarm (Default)

- For **master** and **family** users: #11#1# **(74)**

☺ **Successful SMS reply**

SMS notification upon Alarm – enabled.

5.2.5 No MMS notification upon alarm

- For **master** and **family** users: #12#0# **(75)**

☺ **Successful SMS reply**

MMS notification upon Alarm-disabled, alarm with SMS only

5.2.6 MMS notification upon alarm (Default)

- For **master** and **family** users: #12#1# **(76)**

☺ **Successful SMS reply**

MMS notification upon Alarm-enabled.

5.2.7 No call notification upon alarm (Default)

- For **master** and **family** users:: #13#0# **(77)**

☺ **Successful SMS reply**

Call preset number upon Alarm - disabled.

5.2.8 Call notification upon alarm

- For **master** and **family** users: #13#1# **(78)**

☺ **Successful SMS reply**

Call preset number upon Alarm - enabled.

- If camera alarm automatically, it will dial the master user's number. Live audio stream can be heard upon answering the call.
- If the master user does not answer the call, camera will then dial the family user's numbers in the preset order, until someone answers the call.
- The master user's and the family user's numbers will be called a maximum three times. If it is still no one answers the call, camera will then exit dialing mode automatically.
- If SMS, MMS and calling notification are all activated, when camera alarm automatically, it will firstly send an SMS, secondly an MMS and thirdly a calling notification to preset users.

5.2.9 No MMS notification to pre-set E-mail address (Default)

- For **master** and **family** users: #110#0# **(79)**

☺ **Successful SMS reply**

Email notification upon alarm – disabled.

5.2.10 MMS notification to pre-set E-mail address

- For **master** and **family** users: #110#1# **(80)**

☺ **Successful SMS reply**

Email notification upon alarm – enabled.

If the MMS notifications is set to be send to both a mobile phone number as well as to an e-mail address, the MMS image will firstly be sent to the mobile phone number and then to the E-mail address.

5.2.11 The alarm-suspension time between two alarms

Once camera alarms automatically, after it finish sending the alarm message, it will be at the alarm-suspension situation for a period time, that is, the camera can not be triggered again within a period time.

The user sends following SMS message to camera in order to set:

The alarm-suspension time between two alarms:

#151#*Minutes*# **(81)**

- The Minutes values should be in the range from 0-10 minute(s). 0 means no alarm-suspension between two alarms.
- Minutes value is default 1 minute.

Successful SMS reply

The time between two alarms is *

5.3 Turn on/off LED indicator on the camera

Authority: **Master**, **family** user.

📖 **Description**

If the LED indicator is on, it will display in different ways to show the working status. If it turns off, it can make camera private and avoid to be found easily.

Method

The user sends following SMS message in order to:

Turn off indicator: #143#0# **(82)**

Turn on indicator: #143#1# **(83)**

☺ **Successful SMS reply**

Status LED - OFF

Status LED - ON.

5.4 SMS notification upon the power supply changing

Authority: **Master** and **family** user.

Method

The user sends following SMS message in order to set:

SMS notification upon the power supply changing (Default):

#144#1# **(84)**

SMS notification upon power source change - enabled

User will receive SMS when power supply changing

When external power off, device was run by internal battery, user will receive SMS: External power - ceased. Running on battery.

When external AC power was on again, user will receive SMS:

External power - resumed.

No SMS notification upon the power supply changing:

#144#0# **(85)**

SMS notification upon power source change - disabled

Chapter 6 Maintenance

- Store and use the remote camera in suitable temperature. Too high or too low temperature will likely to damage the camera.
- Try to keep the camera and all its accessories dry. Do not store and use it in the bathroom, or other place with high humidity. Do not allow pour water or other liquids into the camera, otherwise, it might cause malfunctions.
- Do not store and use the camera in dusty.
- Do not use alcohol, acetone and other similar solvents to clean it. Wipe it with soft-wet cloth.
- Do not attempt to open it except as instructed. If the camera does not work normally, try to resolve it as the guide of the "general troubleshooting", if to the problem can not be solved, contact with the dealer immediately.

- To prolong the life-span of the battery, connect the camera to the power supply to charge the built-in Lithium battery for 4 hours every 3 months if the camera does not use for long time. Charge the battery at least 12 hours at the first time use to achieve the full performance of the battery.

Chapter 7 General Troubleshooting

No.	General Trouble	Possible Reason	Solution
1	Can't start camera (Indicator is working)	Other master is already set in the camera.	Recover to factory default setting.
2	All functions disable (Indicator is working)	Caller ID presentation or MMS functions of the SIM card do not active, insufficient fee of the SIM card.	Contact network provider to active SIM card function. Pay for the card.
3	Indicator constant light in red color.	Can't find or identify the SIM card.	SIM card no install properly: Power off the camera and check it again.
4	Camera didn't response of any operation.	Camera work abnormally.	Switch off the power, check SIM card, or reset factory setting.
5	After starting the camera, indicator flashed in red color and can	Network signal weak or network busy.	Place the camera at other place with strong signal and try again.

	not turn to green.	SIM card PIN code actives.	Close the PIN code.
		SIM card invalid.	Contact with local operator to check of it.
6	Remote control can't work. Or action slowly. Or control distance range shortened.	Camera low power.	Connect external power to recharge the battery.
		Remote control low power.	Change remote control battery.
		Two remote control work simultaneously.	Try only one remote control.
7	Can't add new remote control or wireless sensor	The remote control or sensor already studies successfully.	Exit the loading status.
		The sensor quantity is already reaches its max number.	Delete old sensors before add new sensor.
		Didn't set master user number	Set master number before add sensor.
8	Can't start the camera after long time supply with the battery.	Battery runs out of power.	Connect the camera to external AC power and charge for at least one hour, then, restart camera.

Note:
If the problem can't be solved with above guidelines, contact to your local distributor or after service center.

Appendix 1: SMS command list

Category	Function	Command	User
Define the user	Add a master number to the camera	(1) #00#Device-phone-number#	Master
	Change the master user's number	(2) #14#NewMasterNumber#	Master
	Change the password	(3) #04#oldpassword#newpassword#	Master
	Add a family number	(4) #06#FamilyNumber#	Master
	Add several family numbers	(5) #06#FamilyNumber#..#Family Number#	Master
	Delete a family number	(6) #113#FamilyNumber#	Master
	Delete several family numbers simultaneously	(7) #113#FamilyNumber#...#Family Number#	Master
	Delete all family numbers	(8) #113#	Master
	Add single emergency number on the camera	(9) #106#EmergencyNumber#	Master
	Add several emergency numbers on the camera	(10)#106#EmergencyNumber#...#Emergency Number#	Master
	Delete an emergency number	(11) #107#EmergencyNumber#	Master
	Delete several emergency numbers	(12)#107#EmergencyNumber#...#Emergency Number#	Master
	Delete all emergency numbers	(13) #107#	Master

Category	Function	Command	User
Network parameter settings	Set sending MMS message via WAP	(14) #148#0#	Master
	Set sending MMS message via WAP	(15) #148#1#	Master
	Set MMS center	(16) #124#MMScenter#	Master
	Set APN parameters	(17) #125#GatewayIP#WAPGatewayPort#HTTPGatewayPort#APN#APNusername#APNpassword#	Master
	Clear existed Network parameter settings ,and use SIM card default MMS parameter	#54#	Master
	Check the current MMS parameter	#55#	Master
capture images	Capture one image and send to the user mobile	(18) #03#	Master Family
		(19) #03#*password*#	Guest
	Capture more than one image and send to the user mobile	(20) #03#*ImageQuantity*#	Master Family
		(21) #03#*Password*#*ImageQuantity*#	Guest
	Capture image(s) and send back to user's pre-set E-mail address	(22) #03#*ImageQuantity*#1#	Master Family
	Capture image(s) and send to appointed mobile or E-mail address	(23) #30#*Number/Email*#*ImageQuantity*#	Master Family
		(24)#30#*Password*#*Number/Email*#*ImageQuantity*#	Guest

Category	Function	Command	User
capture images	The interval time for the images capture	#103#value# Value：3-10 Unit: 0.1 second Default value : 5 (0.5 second)	Master Family
E-mail settings	Add/modify an E-mail address	(25) #108#*EmailAddress*#	Master Family
	Delete all E-mail address	(26) #109#	Master
Timed imaging	Enable timing sends MMS images	(27) #115#1#	Master
	Set time period to auto-send MMS image	(28)#116#*WorkDay*#*StartTime1*#*EndTime1*#*IntervelTime1*#...#*StartTime3*#*EndTime3*#*IntervelTime3*#	Master
	Disable timing send MMS image	(29) #115#0#	Master
Remote control	No SMS notification message upon arming or Disarming camera via remote control	(30) #137#0#	Master Family
	Send SMS notification message upon arming or disarming camera via remote control	(31) #137#1#	Master Family
	Remove all remote controls from the camera	(32) #111#	Master Family
Emergency alarm	Emergency Mode1(to dial)	(33) #39#0#	Master Family
	Emergency Mode2(to send SMS and MMS message)	(34) #39#1#	Master Family

Category	Function	Command	User
infrared body detector	Activate infrared body detector (default)	(35) #118#1#	Master Family
	Deactivate infrared body detector	(36) #118#0#	Master Family
	Internal infrared body detector link to motion detector	(37)#166#1#	Master Family
Motion detection	Deactivate motion detection(default)	(38) #22#0#	Master Family
	Activate motion detection	(39) #22#1#	Master Family
	Send five images upon motion detection alarm	(40 #142#1#	Master Family
	Cancel send five images of motion detection alarm	(41) #142#0#	Master Family
	Motion detection sensitivity	#36#value# value:1,2,3,4,5 default value : 4	Master Family
wireless sensor	Make camera enter loading mode and set corresponding alarm mode	(42) #05#*SensorDescription*#	Master Family
	Make camera enter loading the "wireless panic button" mode	(43) #196#*SensorDescription*#	Master Family
	Remove a wireless sensor	(44)#112#*SensorDescription*#...#*SensorDescription*#	Master Family
	Remove all wireless sensors	(45) #112#	Master Family

Category	Function	Command	User
wireless sensor	wireless sensor link to motion detector	(46)#166#2#SensorDescription#1#	Master Family
	wireless sensor dislink to motion detector	(47)#166#2#SensorDescription#0#	Master Family
	All Sensors(include infrared body detector)dislink to motion detector	(48)#166#0#	Master Family
	wireless sensor alarm without sending MMS	#40#0#	Master Family
	wireless sensor alarm to send MMS	#40#1#	Master Family
Arming or disarming camera	Arming camera manually	(49) #01#	Master Family
	Disarming camera manually	(50) #02#	Master Family
	Enable timing arms the camera	(51) #128#1#	Master Family
	Set time period to arm the camera	(52)#129#*WorkDay*#*ArmTime1*#*DisarmTime1*#...#*ArmTime3*#*DisarmTime3*#	Master Family
	Disable timing arm the camera	(53) #128#0#	Master Family
	Activate auto-disarming the camera	(54) #138#1#	Master Family
	Set the value of alarm times when camera is auto-disarming	(55) #139#*times*#	Master Family

Category	Function	Command	User
Arming or disarming camera	Disable the function of auto-disarming the camera	(56 #138#0#	Master Family
	Alarm MMS send to Master and Family	#146#1#	Master
	Alarm MMS send to master Only	#146#0#	Master
	Alarm SMS send to Master and family	#147#1#	Master
	Alarm SMS send to Master Only	#147#0#	Master
	Alarm SMS to emergency number	#51#1#	Master
	Alarm NO SMS to emergency number	#51#0#	Master
	Alarm NO dial emergency number	#50#0#	Master
	Alarm dial emergency number (No including Master number)	#50#1#	Master
language setting	English (default)	(57) #127#1#	Master
	Russian	(58) #127#2#	Master
	Spanish	(59)#127#3#	Master
	France	(60)#127#4#	Master
Check status	Check the present settings and work status of the camera	(61) #07#	Master Family
		(62) #07#*password*#	Guest
Getting help	Getting normal command list via SMS	(63) #09#	Master Family
		(64) #09#*password*#	Guest

Category	Function	Command	User
Getting help	Getting detailed instruction via MMS	(65) #09#1#	Master Family
		(66) #09#*password*#1#	Guest
Reset	Reset the camera	(67) #08#*password*#	Master
Image settings	Image size	(68) #32#*value*# Value:1,2,3 Default :2	Master Family
	Image quantity	(69) #33#*quantity*#	Master Family
	Image interval	(70) #103#*time*#	Master Family
	Image brightness	#34#value# Value:1,2,3,4,5 Default :4	Master Family
	Image contrast	#38#value# Value:1,2,3,4,5 Default :4	Master Family
	Image orientation	#35#value# value:1,2,3 1：Up / Down 2：Left / Right 3：default	Master Family
Automatic alarm settings	Warning tone upon alarm triggering	(71) #130#1#	Master Family
	No warning tone upon alarm (Default)	(72) #130#0#	Master Family
	No SMS notification upon alarm	(73) #11#0#	Master Family
	SMS notification upon alarm (Default)	(74) #11#1#	Master Family
	No MMS notification upon alarm	(75) #12#0#	Master Family
	MMS notification upon alarm (Default)	(76) #12#1#	Master Family

Category	Function	Command	User
Automatic Alarm settings	No call notification upon alarm (Default)	(77) #13#0#	Master Family
	Call notification upon alarm	(78) #13#1#	Master Family
	No MMS notification to pre-set E-mail address (Default)	(79) #110#0#	Master Family
	MMS notification to pre-set E-mail address	(80) #110#1#	Master Family
	The alarm-suspension time between two alarms	(81) #151#*Minutes*#	Master Family
Lights	Turn off indicator	(82) #143#0#	Master
	Turn on indicator	(83) #143#1#	Master
Speaker	Speaker-turned ON	#164#1#	Master
	Speaker-turned Off	#164#0#	Master
Infrared lights	Auto on when light is weak during image capture	#31#0#	Master Family
	Always OFF	#31#2#	Master Family
	Auto on by the site lightness (at the following condition, Motion detection on at arming.)	#31#1#	Master Family
SMS notification and reply	SMS notification upon the power supply changing (Default)	(84) #144#1#	Master Family
	No SMS notification upon the power supply changing	(85) #144#0#	Master Family

Appendix 2: Main Technical Parameters

Power adaptor	Input: 100V~240V AC 50~60HZ Output: 5~5.5V DC 1~2A
Work temperature	-10℃ ~ +45℃
Store temperature	-20℃ ~ +60℃
Relative Humidity	10 ~ 90%(without condensation)
Work band	EGSM900、DSC1800 (GSM850、PCS1900 Optional)
Communication protocols	GSM PHASE 2/2+ (including data operation)
Wireless sensor receiving code	ASK
Wireless sensor receiving band	433MHZ or 315MHZ
Max wireless sensor	25 units
Remote control receiving band	433MHZ or 315MHZ
Effective distant of the remote control	20 Meters(wide area)
Image format	JPEG
Image resolution	160x128、QVGA 320x240、 VGA 640x480
Camera pixel	300K pixel
Camera Shooting angel	70° degree
Best shooting distance in night	≤8 Meter
Lithium battery	800 mAh
Battery standby time	24 hours(Affected by network)